Connecting via Winsock to STN

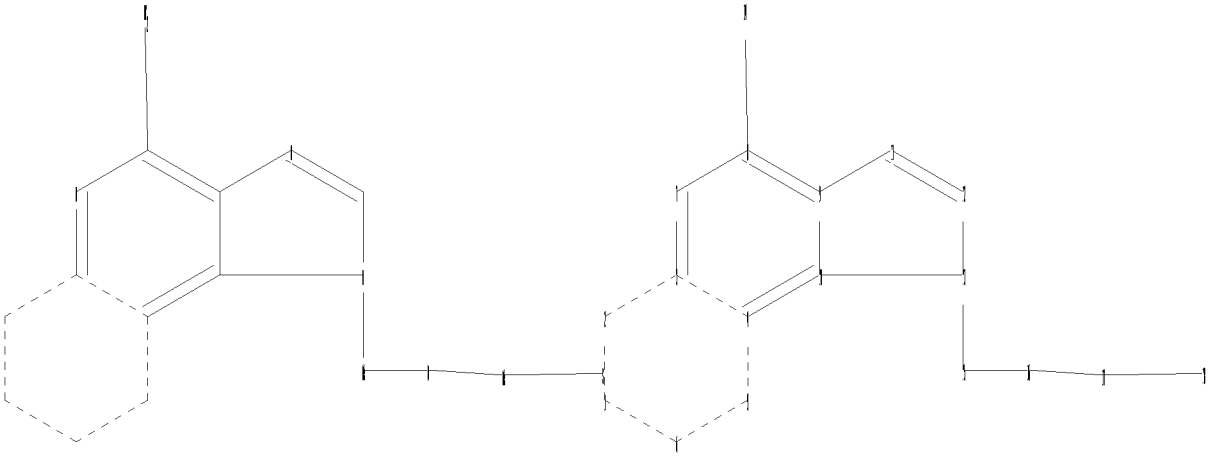
Welcome to STN International! Enter x:x

LOGINID: * * * * * * * * STN Columbus * * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:46:06 ON 12 AUG 2010

=>
=> file reg

=>
Uploading C:\Program Files\Stnexp\Queries\10596117.str

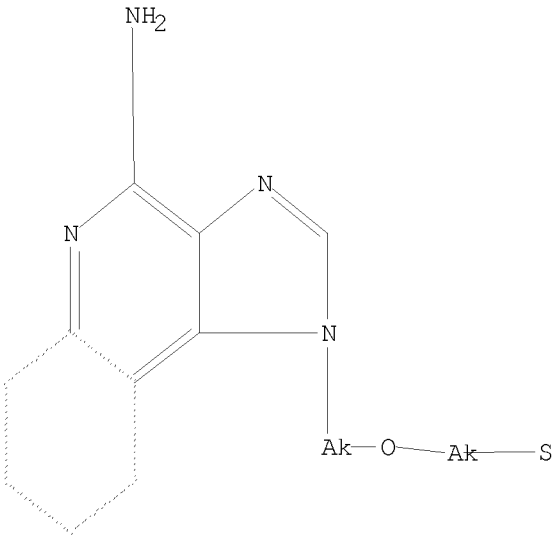


chain nodes :
14 15 16 17 18
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13
chain bonds :
8-14 13-15 15-16 16-17 17-18
ring bonds :
1-2 1-6 2-3 3-4 3-7 4-5 4-10 5-6 7-8 8-9 9-10 9-11 10-13 11-12 12-13
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 5-6 8-14 9-11 10-13 11-12 12-13 13-15 15-16 16-17
17-18
normalized bonds :
3-7 4-10 7-8 8-9 9-10
isolated ring systems :
containing 1 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 sam
SAMPLE SEARCH INITIATED 10:46:31 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1989 TO ITERATE

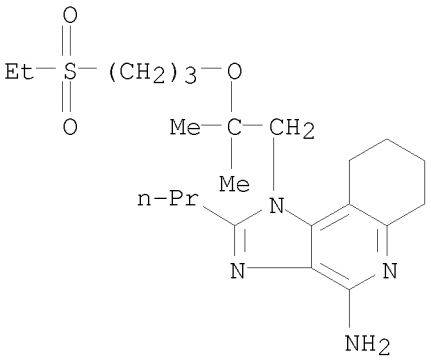
100.0% PROCESSED 1989 ITERATIONS 18 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 37105 TO 42455
PROJECTED ANSWERS: 106 TO 614

L2 18 SEA SSS SAM L1

=> d scan

L2 18 ANSWERS REGISTRY COPYRIGHT 2010 ACS on STN
IN 1H-Imidazo[4,5-c]quinolin-4-amine,
1-[2-[3-(ethylsulfonyl)propoxy]-2-methylpropyl]-6,7,8,9-tetrahydro-2-
propyl-
MF C22 H36 N4 O3 S



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> s l1 full
FULL SEARCH INITIATED 10:46:43 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 40394 TO ITERATE

100.0% PROCESSED 40394 ITERATIONS 446 ANSWERS
SEARCH TIME: 00.00.02

L3 446 SEA SSS FUL L1

=> file ca

=> s l3
L4 5 L3

=> d ibib abs fhitstr hitrn 1-5

L4 ANSWER 1 OF 5 CA COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 144:299305 CA
TITLE: Compositions comprising nitrogen-containing heterocycle immune response modifiers for mucosal vaccination
INVENTOR(S): Miller, Richard L.; Kieper, William C.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: U.S. Pat. Appl. Publ., 20 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20060051374	A1	20060309	US 2005-116476	20050428
CA 2564855	A1	20051028	CA 2005-2564855	20050428
WO 2006126981	A2	20061130	WO 2005-US14746	20050428

WO 2006126981 A3 20090409
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

AU 2005331250	A1	20061214	AU 2005-331250		20050428
EP 1755665	A2	20070228	EP 2005-857870		20050428
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, LV, MK, YU					
BR 2005010430	A	20071030	BR 2005-10430		20050428
JP 2008505857	T	20080228	JP 2007-518053		20050428
MX 2006012451	A	20070131	MX 2006-12451		20061026
CN 101426524	A	20090506	CN 2005-80013768		20061030
IN 2006CN04378	A	20070615	IN 2006-CN4378		20061128
PRIORITY APPLN. INFO.:			US 2004-566121P	P	20040428
			WO 2005-US14746	W	20050428

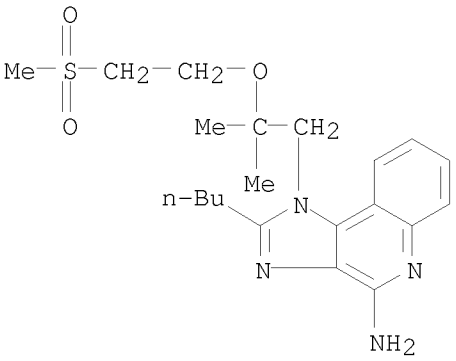
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present invention provides pharmaceutical combinations that include small mol. immune response modifiers (IRMs) formulated for mucosal administration and an antigen formulated for mucosal administration. Addnl., the invention provides methods for immunizing a subject. Generally, the methods include administering an antigen to a mucosal surface of the subject in an amount effective, in combination with an IRM compound, to generate an immune response against the antigen; and administering an IRM compound to a mucosal surface of the subject in an amount effective, in combination with the antigen, to generate an immune response against the antigen. For example, an ovalbumin-IRM1 (N-[6-[[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl] 1,1-dimethylethyl]amino]-6-oxohexyl]-4-azido-2-hydroxybenzamide) conjugate was prepared and suspended in PBS to a final concentration of 5 mg/mL ovalbumin and 0.5 mg/mL IRM1. Mice were immunized on Day 0 with 100 μg of the ovalbumin-IRM1 conjugate, either intranasally or i.v. Intranasal delivery of antigen plus IRM1 generated greater total ovalbumin-specific CD8+ T cell (OT-I) nos. at Day 7 than i.v. delivery in all lymphoid tissues examined Also, intranasal delivery of IRM1 plus antigen generated greater total OT-I cell nos. at Day 7 than antigen alone, indicating a dramatic effect of the IRM in enhancing antigen specific T cell activation via that route.

IT 862844-28-8, IRM 7
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. comprising antigen and aminopyridine fused to five membered nitrogen-containing heterocycle as immune modifier for mucosal vaccination)

RN 862844-28-8 CA

CN 1H-Imidazo[4,5-c]quinolin-4-amine, 2-butyl-1-[2-methyl-2-[2-(methylsulfonyl)ethoxy]propyl]- (CA INDEX NAME)



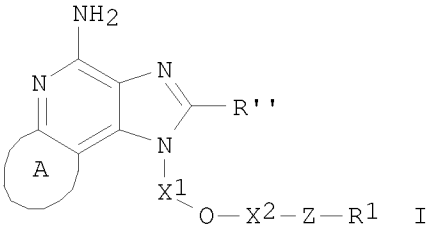
IT 862844-28-8, IRM 7
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(compns. comprising antigen and aminopyridine fused to five membered nitrogen-containing heterocycle as immune modifier for mucosal vaccination)

L4 ANSWER 2 OF 5 CA COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 143:229858 CA
TITLE: Preparation of sulfone-substituted imidazo-fused ring ethers as immunomodulators
INVENTOR(S): Radmer, Matthew R.; Moser, William H.; Moseman, Joan T.; Dellaria, Joseph F., Jr.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 208 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005076783	A2	20050825	WO 2004-US40383	20041203
WO 2005076783	A3	20051229		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004315771	A1	20050825	AU 2004-315771	20041203
CA 2549216	A1	20050825	CA 2004-2549216	20041203
AR 48289	A1	20060419	AR 2004-104518	20041203
EP 1694674	A2	20060830	EP 2004-821353	20041203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1914203	A	20070214	CN 2004-80041400	20041203

JP 2007513170	T	20070524	JP 2006-542750		20041203
US 20070155767	A1	20070705	US 2006-596117		20060531
IN 2006CN01966	A	20070608	IN 2006-CN1966		20060602
PRIORITY APPLN. INFO.:			US 2003-526772P	P	20031204
			WO 2004-US40383	W	20041203

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): CASREACT 143:229858; MARPAT 143:229858
GI



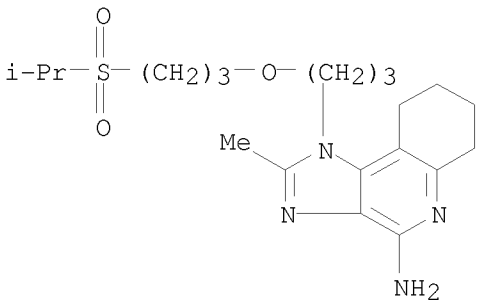
I

AB Title compds. I [X1-2 = alkylene, alkenylene, etc.; Z = SO0-2; R1 = alk(en/yn)yl, aryl, etc.; A = fused (hetero)aryl ring, etc.; R'' = H or non-interfering substituent] are prepared For instance, 2-Methyl-1-[2-[2-(methylsulfonyl)ethoxy]ethyl]-1H-imidazo[4,5-c]quinolin-4-amine is prepared in 8 steps from 2-[2-[(tert-butoxycarbonyl)amino]ethoxy]ethyl methanesulfonate, 4-chloro-3-nitroquinoline and tri-Me orthoacetate. I are immunomodulators for inducing cytokine biosynthesis [no data] and useful in the treatment of diseases including viral and neoplastic diseases.

IT 1044429-39-1
RL: PRPH (Prophetic)
(Preparation of sulfone-substituted imidazo-fused ring ethers as immunomodulators)

RN 1044429-39-1 CA

CN 1H-Imidazo[4,5-c]quinolin-4-amine, 6,7,8,9-tetrahydro-2-methyl-1-[3-[3-[(1-methylethyl)sulfonyl]propoxy]propyl]- (CA INDEX NAME)



IT 1044429-39-1 1044429-40-4 1044429-41-5
1044429-44-8 1044429-47-1 1044429-48-2
1044429-49-3 1044429-52-8 1044429-54-0
1044429-55-1 1044429-56-2 1044429-60-8
1044429-62-0 1044429-63-1 1044429-64-2

1044429-68-6 1044429-70-0 1044429-71-1
1044429-73-3 1044429-76-6 1044429-78-8
1044429-79-9 1044429-81-3 1044429-84-6
1044429-86-8 1044429-87-9 1044429-89-1
1044429-92-6 1044429-94-8 1044429-96-0
1044429-97-1 1044430-00-3 1044430-02-5
1044430-04-7 1044430-05-8 1044430-08-1
1044430-10-5 1044430-68-3 1044430-69-4
1044430-73-0 1044430-74-1 1044430-76-3
1044430-77-4 1044430-81-0 1044430-83-2
1044430-84-3 1044430-85-4 1044430-89-8
1044430-91-2 1044430-92-3 1044430-93-4
1044430-97-8 1044430-99-0 1044431-00-6
1044431-02-8 1044431-06-2 1044431-07-3
1044431-08-4 1044431-10-8 1044431-14-2
1044431-15-3 1044431-16-4 1044431-19-7
1044431-22-2 1044431-23-3 1044431-24-4
1044431-28-8 1044431-30-2 1044431-31-3
1044431-32-4 1044431-36-8 1044431-38-0
1044431-39-1 1044431-40-4 1044431-44-8
1044431-46-0 1044431-47-1 1044431-49-3
1044431-52-8 1044431-54-0 1044431-55-1
1044431-57-3 1044431-60-8 1044431-62-0
1044431-63-1 1044431-65-3 1044431-68-6
1044431-70-0 1044431-71-1 1044431-73-3
1044431-76-6 1044431-78-8 1044431-79-9
1044431-81-3 1044431-84-6 1044431-86-8
1044431-87-9 1044431-89-1 1044431-92-6
1044431-94-8 1044431-95-9 1044433-25-1
1044433-26-2 1044433-29-5 1044433-31-9
1044433-33-1 1044433-34-2 1044433-37-5
1044433-38-6 1044433-41-1 1044433-42-2
1044433-45-5 1044433-46-6 1044433-49-9
1044433-52-4 1044433-53-5 1044433-54-6
1044433-58-0 1044433-59-1 1044433-61-5
1044433-62-6 1044433-66-0 1044433-67-1
1044433-69-3 1044433-70-6 1044433-74-0
1044433-76-2 1044433-77-3 1044433-80-8
1044433-82-0 1044433-84-2 1044433-85-3
1044433-88-6 1044433-90-0 1044433-92-2
1044433-93-3 1044433-96-6 1044433-98-8
1044434-00-5 1044434-01-6 1044434-04-9
1044434-06-1 1044434-08-3 1044434-09-4
1044434-12-9 1044434-14-1 1044434-16-3
1044434-17-4 1044434-20-9 1044434-22-1
1044434-24-3 1044434-25-4 1044434-28-7
1044434-30-1 1044434-32-3 1044434-33-4
1044434-36-7 1044434-38-9 1044434-65-2
1044434-67-4 1044434-71-0 1044434-72-1
1044434-81-2 1044434-82-3 1044434-83-4
1044434-88-9 1044434-89-0 1044434-94-7
1044434-95-8 1044434-96-9 1044434-97-0
1044435-02-0 1044435-03-1 1044435-04-2
1044435-05-3 1044435-10-0 1044435-11-1
1044435-12-2 1044435-13-3 1044435-18-8
1044435-19-9 1044435-20-2 1044435-21-3
1044435-26-8 1044435-27-9 1044435-28-0

1044435-29-1 1044435-34-8 1044435-35-9
1044435-36-0 1044435-37-1 1044435-42-8
1044435-43-9 1044435-44-0 1044435-45-1
1044435-50-8 1044435-51-9 1044435-52-0
1044435-53-1 1044435-58-6 1044435-59-7
1044435-60-0 1044435-61-1 1044435-66-6
1044435-67-7 1044435-68-8 1044435-69-9
1044438-51-8 1044438-52-9 1044438-57-4
1044438-58-5 1044438-59-6 1044438-60-9
1044438-65-4 1044438-66-5 1044438-67-6
1044438-68-7 1044438-73-4 1044438-74-5
1044438-75-6 1044438-76-7 1044438-81-4
1044438-82-5 1044438-83-6 1044438-84-7
1044438-89-2 1044438-90-5 1044438-91-6
1044438-92-7 1044439-14-6 1044439-15-7
1044439-16-8 1044439-20-4 1044439-27-1
1044439-32-8 1044439-33-9 1044439-34-0
1044439-35-1
RL: PRPH (Prophetic)
(Preparation of sulfone-substituted imidazo-fused ring ethers as immunomodulators)

IT 1044439-39-5 1044439-40-8 1044439-41-9
1044439-43-1 1044439-47-5 1044439-48-6
1044439-49-7 1044439-51-1 1044439-52-2
1044439-55-5 1044439-56-6 1044439-57-7
1044439-59-9 1044439-62-4 1044439-64-6
1044439-65-7 1044439-66-8 1044439-70-4
1044439-72-6 1044439-73-7 1044439-74-8
1044439-78-2 1044439-79-3 1044439-81-7
1044439-82-8 1044439-86-2 1044439-87-3
1044439-89-5 1044439-90-8 1044439-92-0
1044439-95-3 1044439-96-4 1044439-98-6
1044439-99-7 1044440-03-0 1044440-04-1
1044440-06-3 1044440-07-4 1044440-11-0
1044440-12-1 1044440-14-3 1044440-15-4
1044440-19-8 1044440-20-1 1044440-21-2
1044440-22-3 1044440-23-4 1044440-24-5
1044440-25-6 1044440-26-7 1044440-27-8
1044440-30-3 1044440-32-5 1044440-33-6
1044440-34-7 1044440-38-1 1044440-40-5
1044440-41-6 1044440-43-8 1044440-46-1
1044440-48-3 1044440-49-4 1044440-51-8
1044440-54-1 1044440-56-3 1044440-57-4
1044440-59-6 1044440-62-1 1044440-64-3
1044440-65-4 1044440-67-6 1044441-54-4
1044441-57-7 1044441-58-8 1044442-09-2
1044442-11-6 1044442-12-7 1044442-13-8
1044442-17-2 1044442-19-4 1044442-20-7
1044442-21-8 1044442-25-2 1044442-27-4
1044442-28-5 1044442-29-6 1044442-33-2
1044442-35-4 1044442-36-5 1044442-38-7
1044442-41-2 1044442-43-4 1044442-44-5
1044442-46-7 1044442-49-0 1044442-51-4
1044442-52-5 1044442-54-7 1044442-57-0
1044442-62-7 1044442-63-8 1044442-65-0
1044442-66-1 1044442-70-7 1044442-71-8
1044442-73-0 1044442-74-1 1044442-78-5

1044442-79-6 1044442-81-0 1044442-82-1
1044442-83-2 1044442-84-3 1044442-92-3
1044442-94-5 1044442-95-6 1044442-96-7
1044442-99-0 1044443-02-8 1044443-03-9
1044443-04-0 1044443-07-3 1044443-10-8
1044443-11-9 1044443-12-0 1044443-15-3
1044443-16-4 1044443-17-5 1044443-18-6
1044443-19-7 1044443-20-0 1044443-21-1
1044443-22-2 1044443-23-3 1044443-24-4
1044443-25-5 1044443-26-6 1044443-27-7
1044443-28-8 1044443-29-9 1044443-30-2
1044443-31-3 1044443-32-4 1044443-33-5
1044443-34-6 1044443-35-7 1044443-36-8
1044443-37-9 1044443-38-0 1044443-39-1
1044443-40-4 1044443-41-5 1044443-42-6
1044443-43-7 1044443-44-8 1044443-45-9
1044443-46-0 1044443-47-1 1044443-48-2
1044443-49-3 1044443-50-6 1044443-51-7
1044443-52-8 1044443-53-9
RL: PRPH (Prophetic)
(Preparation of sulfone-substituted imidazo-fused ring ethers as immunomodulators)

IT 862843-44-5P, 2-Methyl-1-[2-[2-(methylsulfonyl)ethoxy]ethyl]-1H-imidazo[4,5-c]quinolin-4-amine 862843-53-6P, 1-[2-[2-(Methylsulfonyl)ethoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862843-55-8P, 2-Ethyl-1-[2-[2-(methylsulfonyl)ethoxy]ethyl]-1H-imidazo[4,5-c]quinolin-4-amine 862843-65-0P, 2-Ethoxymethyl-1-[2-[2-(methylsulfonyl)ethoxy]-2-methylpropyl]-1H-imidazo[4,5-c]quinolin-4-amine 862843-87-6P, 1-[2-[3-(Methylthio)propoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862843-93-4P, 2-Methyl-1-[2-methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-1H-imidazo[4,5-c]quinolin-4-amine 862843-96-7P, 1-[2-Methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862844-24-4P, 1-[2-Methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-1H-imidazo[4,5-c]quinolin-4-amine 862844-28-8P, 2-Butyl-1-[2-methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-1H-imidazo[4,5-c]quinolin-4-amine 862844-36-8P, 2-Ethyl-1-[2-methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-1H-imidazo[4,5-c]quinolin-4-amine 862844-39-1P, 2-(Methoxymethyl)-1-[2-methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-1H-imidazo[4,5-c]quinolin-4-amine
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of sulfone-substituted imidazo-fused ring ethers as immunomodulators)

IT 845638-53-1P, 2-Butyl-1-[2-[2-(methylsulfonyl)ethoxy]ethyl]-1H-imidazo[4,5-c]quinolin-4-amine 862843-51-4P, 1-[2-[2-(Methylsulfonyl)ethoxy]ethyl]-1H-imidazo[4,5-c]quinolin-4-amine 862843-57-0P, 2-(Ethoxymethyl)-1-[2-[2-(methylsulfonyl)ethoxy]ethyl]-1H-imidazo[4,5-c]quinolin-4-amine 862843-60-5P, 2-(2-Methoxyethyl)-1-[2-[2-(methylsulfonyl)ethoxy]ethyl]-1H-imidazo[4,5-c]quinolin-4-amine 862843-63-8P, 2-Ethoxymethyl-1-[2-[2-(phenylsulfonyl)ethoxy]-2-methylpropyl]-1H-imidazo[4,5-c]quinolin-4-amine 862843-67-2P, 1-[2-[2-(Methylsulfonyl)ethoxy]ethyl]-2-methyl-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-4-amine 862843-68-3P,

1-[2-[2-(Methylsulfonyl)ethoxy]ethyl]-2-propyl-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-4-amine 862843-70-7P, 2-Ethyl-1-[2-[2-(methylsulfonyl)ethoxy]ethyl]-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-4-amine 862843-71-8P, 1-[2-[3-(Phenylsulfonyl)propoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862843-76-3P, 1-[2-[3-[(1-Methylethyl)sulfonyl]propoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862843-80-9P, 1-[2-[3-[(2-Methylphenyl)sulfonyl]propoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862843-84-3P, 2-Propyl-1-[2-[3-[(pyridin-2-yl)sulfonyl]propoxy]ethyl]-1H-imidazo[4,5-c]quinolin-4-amine 862843-88-7P, 1-[2-[3-(Methylsulfinyl)propoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862843-89-8P, 1-[2-[3-(Methylsulfonyl)propoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862843-91-2P, 1-[2-[3-((Decane-1-yl)sulfonyl)propoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862844-06-2P, 2-Hexyl-1-[2-[2-(methylsulfonyl)ethoxy]ethyl]-1H-imidazo[4,5-c]quinolin-4-amine 862844-22-2P, 2-(Ethoxymethyl)-1-[2-methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-4-amine 862844-26-6P, 2-Methyl-1-[2-methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-4-amine 862844-27-7P, 1-[2-Methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-4-amine 862844-31-3P, 2-Butyl-1-[2-methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-4-amine 862844-35-7P, 1-[2-Methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-2-propyl-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-4-amine 862844-38-0P, 2-Ethyl-1-[2-methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-4-amine 862844-42-6P, 2-(Methoxymethyl)-1-[2-methyl-2-[2-(methylsulfonyl)ethoxy]propyl]-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinolin-4-amine
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of sulfone-substituted imidazo-fused ring ethers as immunomodulators)

IT 862843-75-2P, 1-[2-[3-(Phenylthio)propoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862843-78-5P, 1-[2-[3-[(1-Methylethyl)thio]propoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862843-82-1P, 1-[2-[3-[(2-Methylphenyl)thio]propoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine 862843-85-4P, 2-Propyl-1-[2-[3-[(pyridin-2-yl)thio]propoxy]ethyl]-1H-imidazo[4,5-c]quinolin-4-amine 862843-92-3P, 1-[2-[3-((Decan-1-yl)thio)propoxy]ethyl]-2-propyl-1H-imidazo[4,5-c]quinolin-4-amine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of sulfone-substituted imidazo-fused ring ethers as immunomodulators)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

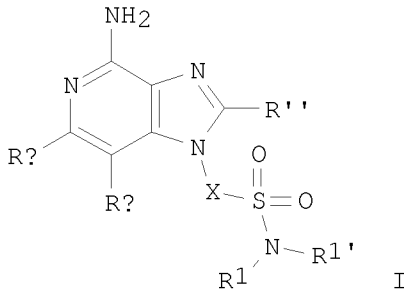
L4 ANSWER 3 OF 5 CA COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 143:153375 CA
TITLE: Preparation of imidazoquinolinyl, imidazopyridinyl, and imidazonaphthyridinyl sulfonamides as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases
INVENTOR(S): Bonk, Jason D.; Dellaria, Joseph F., Jr.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 226 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

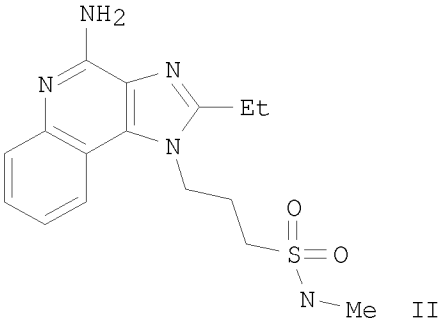
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005066169	A2	20050721	WO 2004-US43447	20041223
WO 2005066169	A3	20051110		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004312508	A1	20050721	AU 2004-312508	20041223
CA 2551399	A1	20050721	CA 2004-2551399	20041223
EP 1699788	A2	20060913	EP 2004-815514	20041223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2007517044	T	20070628	JP 2006-547410	20041223
CN 101014596	A	20070808	CN 2004-80042087	20041223
US 20090062272	A1	20090305	US 2006-596897	20060628
IN 2006CN02383	A	20070706	IN 2006-CN2383	20060630

PRIORITY APPLN. INFO.:	US 2003-533465P	P	20031230
	US 2004-555936P	P	20040324
	US 2004-581335P	P	20040618
	WO 2004-US43447	W	20041223

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
OTHER SOURCE(S): CASREACT 143:153375; MARPAT 143:153375
GI



I



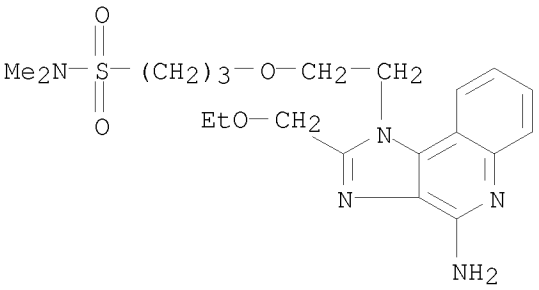
II

AB Title compds. I [X = CHR9, CHR9-alkylene, CHR9-alkenylene wherein alk(en)ylene are optionally interrupted by one or more O; R9 = H, alkyl; R1, R1' = independently H, (un)substituted alk(en)yl, hetero/aryl, etc.; or R1NR1' = nitrogen saturated ring; R'' = H, non-interfering substituent; RA, RB = independently H, halo, alk(en)yl, alkoxy, alkythio, NH2 and derivs.; or RBCCRA = (un)substituted fused hetero/aryl; and their pharmaceutically acceptable salts], were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. For example, II (m.p. = 225-228°) was prepared in 5 steps by amination of 4-chloro-3-nitroquinoline with N-methyl-3-aminopropane-1-sulfonamide•HCl, hydrogenation, cyclization of 1,2-diamine with tri-Et orthopropionate, and oxidation, and amination of the N-oxide (not isolated) with NH4OH. Certain I may modulate cytokine biosynthesis by inhibiting production of interferon α and/or tumor necrosis factor TNF-α when tested in an in vitro blood cell system (no data).

IT 859874-54-7P, N,N-Dimethyl-3-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]propane-1-sulfonamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of imidazoquinolinyl, imidazopyridinyl, and imidazonaphthyridinyl sulfonamides as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases)

RN 859874-54-7 CA

CN 1-Propanesulfonamide, 3-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]-N,N-dimethyl- (CA INDEX NAME)



IT 859874-54-7P, N,N-Dimethyl-3-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]ethoxy]propane-1-sulfonamide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of imidazoquinolinyl, imidazopyridinyl, and imidazonaphthyridinyl sulfonamides as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 5 CA COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 142:246181 CA

TITLE: Formulations containing an amine-based immune response modifier

INVENTOR(S): Hammerbeck, David M.; Guy, Cynthia A.; Leung, Suzanne S.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 118 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005016275	A2	20050224	WO 2004-US25277	20040805
WO 2005016275	A3	20050414		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004264336	A1	20050224	AU 2004-264336	20040805
CA 2534313	A1	20050224	CA 2004-2534313	20040805

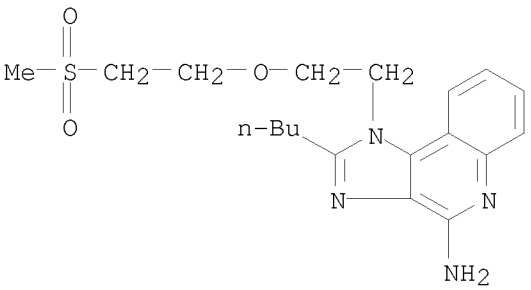
US 20050070460 A1 20050331 US 2004-911800 20040805
EP 1651190 A2 20060503 EP 2004-780166 20040805
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK
JP 2007501252 T 20070125 JP 2006-522714 20040805
US 20070292456 A1 20071220 US 2006-595049 20060118
PRIORITY APPLN. INFO.: US 2003-493109P P 20030805
WO 2004-US25277 W 20040805

AB Pharmaceutical formulations in an aqueous (preferably, sprayable) formulation including an immune response modifier (IRM), such as those chosen from imidazoquinoline amines, tetrahydroimidazoquinoline amines, imidazopyridine amines, 6,7-fused cycloalkylimidazopyridine amines, 1,2-bridged imidazoquinoline amines, imidazonaphthyridine amines, imidazotetrahydronaphthyridine amines, oxazoloquinoline amines, thiazoloquinoline amines, oxazolopyridine amines, thiazolopyridine amines, oxazolonaphthyridine amines, thiazolonaphthyridine amines, and 1H-imidazo dimers fused to pyridine amines, quinoline amines, tetrahydroquinoline amines, naphthyridine amines, or tetrahydronaphthyridine amines, are provided. In one embodiment, the aqueous formulations are advantageous for treatment and/or prevention of allergic rhinitis, viral infections, sinusitis, and asthma. For example, N-[2-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]-1,1-dimethylethyl]methanesulfonamide (IRM 1) was prepared as a 0.375% aqueous solution capable of being nasally administered via a spray pump. The solution contained IRM 1 0.375%, CM-cellulose sodium 0.1%, benzalkonium chloride 0.02%, disodium EDTA 0.1%, L-lactic acid 1.53%, PEG 400 15%, 1N NaOH as needed for pH 4.0, and water to 100%. The IRM 1 solution (50 μL) administered to rats once 4 h before infection with humanized, non-lethal influenza virus, almost completely suppressed the virus. titer.

IT 845638-53-1
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(solns. containing amine-based immunomodulators)

RN 845638-53-1 CA

CN 1H-Imidazo[4,5-c]quinolin-4-amine, 2-butyl-1-[2-[2-(methylsulfonyl)ethoxy]ethyl]- (CA INDEX NAME)



IT 845638-53-1
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(solns. containing amine-based immunomodulators)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 5 CA COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 141:123628 CA

TITLE: Preparation of aryl/heteroaryl substituted imidazoquinolines as immunomodulators

INVENTOR(S): Hays, David S.; Niwas, Shri; Kshirsagar, Tushar; Ghosh, Tarun K.; Gupta, Shalley K.; Heppner, Philip D.; Merrill, Bryon A.; Bonk, Jason D.; Danielson, Michael E.; Gerster, John F.; Haraldson, Chad A.; Johannessen, Sarah C.; Kavanagh, Maureen A.; Lindstrom, Kyle J.; Prince, Ryan B.; Radmer, Matthew R.; Rice, Michael J.; Squire, David J.; Strong, Sarah A.; Wurst, Joshua R.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 465 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058759	A1	20040715	WO 2003-US40373	20031218
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2510375	A1	20040715	CA 2003-2510375	20031218
AU 2003301052	A1	20040722	AU 2003-301052	20031218
US 20040147543	A1	20040729	US 2003-739787	20031218
US 7091214	B2	20060815		
EP 1590348	A1	20051102	EP 2003-814164	20031218
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1747953	A	20060315	CN 2003-80109659	20031218
JP 2006513212	T	20060420	JP 2004-563764	20031218
NZ 540826	A	20080731	NZ 2003-540826	20031218
MX 2005006740	A	20051005	MX 2005-6740	20050617
IN 2005CN01348	A	20070727	IN 2005-CN1348	20050620
ZA 2005005787	A	20061227	ZA 2005-5787	20050719
US 20060111387	A1	20060525	US 2006-275553	20060113
US 7598382	B2	20091006		
IN 2008CN00052	A	20080919	IN 2008-CN52	20080104

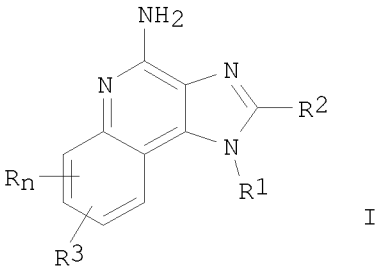
PRIORITY APPLN. INFO.:

US 2002-435889P	P	20021220
US 2003-516331P	P	20031031
US 2003-739787	A3	20031218
WO 2003-US40373	W	20031218
IN 2005-CN1348	A3	20050620

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 141:123628

GI



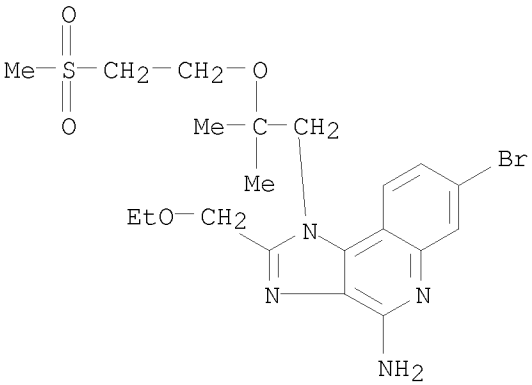
I

AB Title compds. I (R = alkyl, alkoxy, OH, CF3; n = 0, 1; R1, R2 = H, non-interfering substituent; R3 = ArZ, aminosulfonylaryl, aminocarbonylaryl, etc.; Ar = aryl, heteroaryl; Z = bond, alkylene, alkenylene, alkynylene) which are immunomodulators, inducing cytokines biosynthesis, and inhibiting tumor necrosis factors biosynthesis, are prepared For example, 2-butyl-1-isobutyl-7-(thiophen-3-yl)-1H-imidazo[4,5-c]quinolin-4-amine was prepared in a multi-step synthesis starting from 3-bromoaniline, tri-Et orthoformate, and Meldrum's acid. I are useful in the treatment of viral and neoplastic diseases.

IT 723282-84-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of imidazoquinoline derivs. as immunomodulators for treatment of viral and antineoplastic diseases)

RN 723282-84-6 CA

CN 1H-Imidazo[4,5-c]quinolin-4-amine, 7-bromo-2-(ethoxymethyl)-1-[2-methyl-2-[2-(methylsulfonyl)ethoxy]propyl]- (CA INDEX NAME)

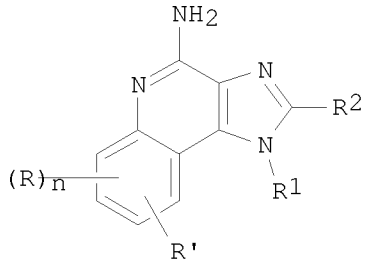


IT 723282-84-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of imidazoquinoline derivs. as immunomodulators for treatment of viral and antineoplastic diseases)

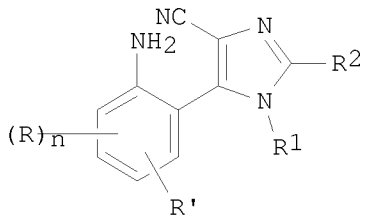
IT 723268-58-4P 723268-59-5P
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of imidazoquinoline derivs. as immunomodulators for treatment

```
        of viral and antineoplastic diseases)
OS.CITING REF COUNT:     10    THERE ARE 10 CAPLUS RECORDS THAT CITE THIS
                               RECORD (18 CITINGS)


=> file marpat

=> d his

     (FILE 'HOME' ENTERED AT 10:46:06 ON 12 AUG 2010)

     FILE 'REGISTRY' ENTERED AT 10:46:12 ON 12 AUG 2010
L1              STRUCTURE UPLOADED
L2           18 S L1 SAM
L3          446 S L1 FULL

     FILE 'CA' ENTERED AT 10:46:49 ON 12 AUG 2010
L4            5 S L3

     FILE 'MARPAT' ENTERED AT 10:48:41 ON 12 AUG 2010

=> s l3 full
FULL SEARCH INITIATED 10:48:48 FILE 'MARPAT'
FULL SCREEN SEARCH COMPLETED -     1849 TO ITERATE

100.0% PROCESSED     1849 ITERATIONS                                16 ANSWERS
SEARCH TIME: 00.00.01

L5           16 SEA SSS FUL L1

=> d ibib abs fqhit 1-16

L5   ANSWER 1 OF 16  MARPAT  COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER:        150:56155  MARPAT
TITLE:                   New process for preparation of
                         1H-imidazo[4,5-c]quinoline derivatives
INVENTOR(S):             Galons, Herve; Gug, Fabienne
PATENT ASSIGNEE(S):      Institut National de la Sante et de la Recherche
                         Medicale (Inserm), Fr.; Universite Paris Descartes
SOURCE:                  PCT Int. Appl., 43pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  2
PATENT INFORMATION:

     PATENT NO.       KIND  DATE           APPLICATION NO.  DATE
     ---------------  ----  --------       ---------------  --------
     WO 2008155745     A2   20081224       WO 2008-IB52489  20080623
     WO 2008155745     A3   20090219
         W:  AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
             CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,
             FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,
             KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,
             ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,
             PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
```

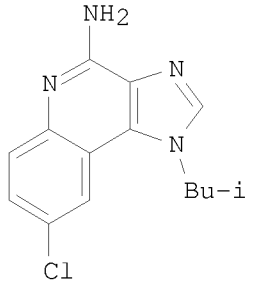
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,
IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,
TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA
EP 2009002 A1 20081231 EP 2007-12155 20070621
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR,
AL, BA, HR, MK, RS
PRIORITY APPLN. INFO.: EP 2007-12155 20070621
OTHER SOURCE(S): CASREACT 150:56155
GI



I



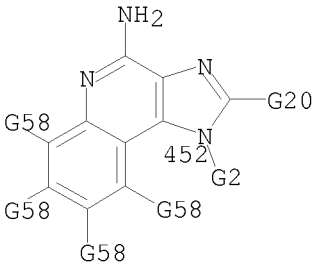
II



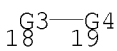
III

AB The present invention relates to a new synthetic route to manufacture 1H-imidazo[4,5-c]quinoline ring systems I and to new corresponding intermediates II [wherein R1 = H, alkyl, Ph, PhCH2, etc.; R2 = H, CF3, alkyl, SH, etc.; R = alkoxy, alkyl, etc.; n = 0-2; R' = H, aryl, etc.]. For example, the compound III was prepared in a multi-step synthesis comprising coupling reaction and cyclization key steps.

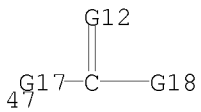
MSTR 4



G2 = 18



G3 = carbon chain <containing 1 or more C,
0 or more double bonds, 0 or more triple bonds>
(opt. substd.)
G4 = 47



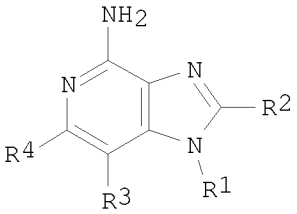
G12 = S
G17 = O
Patent location: claim 10
Note: or pharmaceutically acceptable acid addition salts

L5 ANSWER 2 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 148:79028 MARPAT
TITLE: Ring closing and related methods and intermediates useful in making imidazoquinolinamines and imidazonaphthyridinamines
INVENTOR(S): Hays, David S.; Mackey, Sonja S.; Moser, William H.; Stoermer, Doris; Radmer, Matthew R.; Niwas, Shri
PATENT ASSIGNEE(S): Coley Pharmaceutical Group, Inc., USA
SOURCE: PCT Int. Appl., 123pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

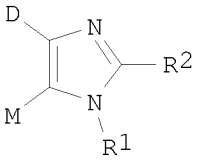
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006121528	A2	20061116	WO 2006-US12022	20060331
WO 2006121528	A3	20070913		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR,

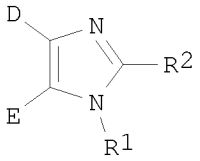
KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX,
MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
VN, YU, ZA, ZM, ZW
RW: AP, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
EA, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, EP, AT, BE, BG, CH, CY,
CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV,
MC, NL, PL, PT, RO, SE, SI, SK, TR, OA, BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
CA 2602853 A1 20061116 CA 2006-2602853 20060331
EP 1863770 A2 20071212 EP 2006-769789 20060331
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL,
BA, HR, MK, YU
JP 2008535831 T 20080904 JP 2008-504436 20060331
PRIORITY APPLN. INFO.: US 2005-667840P 20050401
WO 2006-US12022 20060331
OTHER SOURCE(S): CASREACT 148:79028
GI



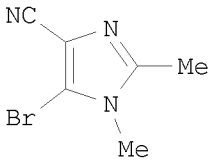
I



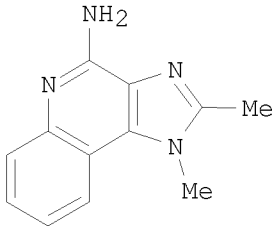
II



III



IV

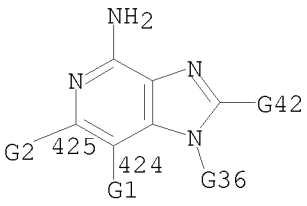


V

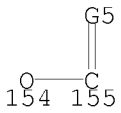
AB Methods and intermediates useful for making compds. I [R1, R2 = H, alkyl, aryl, etc.; R3 and R4 taken together form (un)substituted fused benzene ring or fused pyridine ring], and the preparation of compds. I, preferably including the formation of intermediate [II or III; R1, R2 are defined as above; D = CN, CO2alkyl, CONH2, CHO, CH2OH, CH2Oalkyl; E = Cl, Br, I, OSO2CF3 and N2+BF4-; M = B(OH)2, B(Oalkyl)2, Sn(alkyl)3, etc.], were provided. For example, treating aminomalononitrile p-toluenesulfonate with dry ammonia in MeCN followed by addition of tri-Me orthoacetate, and subsequently N,N-disisopropylethylamine and methylamine hydrochloride afforded 5-amino-1,2-dimethyl-1H-imidazole-4-carbonitrile which was converted to 5-bromo-1,2-dimethyl-1H-imidazole-4-carbonitrile (IV). Coupling of 2-aminophenylboronic acid with IV followed by cyclization of

the resulting 5-(2-aminophenyl)-1,2-dimethyl-1H-imidazole-4-carbonitrile afforded the imidazoquinolinamine V.HCl.

MSTR 3



G5 = S
G21 = carbon chain <containing 1-20 C,
0 or more double bonds, 0 or more triple bonds>
(opt. substd.)
G22 = 154-142 155-144



G35 = 142 / 145

G36 = G35
G42 = G35
G1 +G2 = CH=CHCH=CH (opt. substd. by 1 or more G6)
Patent location: claim 1
Note: substitution is restricted
Note: additional derivatization also claimed

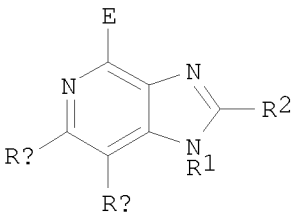
L5 ANSWER 3 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 146:358853 MARPAT
TITLE: Process for preparation of (fused) 1H-imidazo[4,5-c]pyridines by cyclocondensation of acylaminoquinolines with primary amines.
INVENTOR(S): Krepski, Larry R.; Marszalek, Gregory J.; Mackey, Sonja S.; Gerster, John F.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 135pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

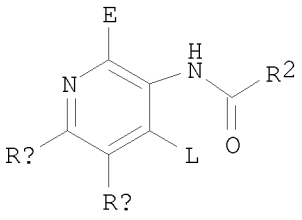
WO 2007035935	A1	20070329	WO 2006-US37317	20060922	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2006292119	A1	20070329	AU 2006-292119	20060922	
CA 2623541	A1	20070329	CA 2006-2623541	20060922	
EP 1937683	A1	20080702	EP 2006-815370	20060922	
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR					
JP 2009509971	T	20090312	JP 2008-532484	20060922	
MX 2008004012	A	20080603	MX 2008-4012	20080324	
IN 2008DN02448	A	20080627	IN 2008-DN2448	20080324	
ZA 2008002824	A	20081231	ZA 2008-2824	20080331	
KR 2008048551	A	20080602	KR 2008-709576	20080422	
CN 101312975	A	20081126	CN 2006-80043878	20080523	
US 20090240055	A1	20090924	US 2009-992371	20090506	
PRIORITY APPLN. INFO.:			US 2005-720171P	20050923	
			US 2006-743505P	20060316	
			WO 2006-US37317	20060922	

OTHER SOURCE(S): CASREACT 146:358853

GI



I



II

AB Title compds. [I; E = H, F, Cl, Br, iodo, OH, Ph, N(Bn)2, etc.; Bn = PhCH2, p-methoxybenzyl, p-methylbenzyl, 2-furylmethyl; E may form a ring with the adjacent pyridine N atom to form a tetrazolo ring; Ra, Rb = H, halo, alkyl, alkenyl, alkoxy, alkylthio, amino; RaRb = atoms to form a fused ring; R1 = R4, XR4, XYR4, XYXYR4, XR5, etc.; R2 = R4, XR4, XYR4, XR5; X = (substituted) alkylene, alkenylene, alkynylene, arylene, heteroarylene, heterocyclylene; Y = O, S, SO, SO2, OCO2, etc.; R4 = H, alkyl, alkenyl, alkynyl, aryl, aralkenyl, heteroaryl, etc.; R5 = specified (hetero)cyclyl], were prepared by reaction of acylaminoquinolines (II; L = F, Cl, Br, iodo, PhO, alkylsulfonyl, arylsulfonyl; other variables as above) with R1NH2 (R1 as above). Thus,

N-(4-chloroquinolin-3-yl)-2-ethoxyacetamide (preparation given), 1-amino-2-methylpropan-2-ol, and p-toluenesulfonic acid were heated together at 125° for 15 h in a pressure vessel to give 1-[2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]-2-methylpropan-2-ol. Treatment of the latter with m-CPBA in CH2Cl2 and then with trichloroacetyl isocyanate in CH2Cl2 to give 1-[4-amino-2-(ethoxymethyl)-1H-imidazo[4,5-c]quinolin-1-yl]-2-methylpropan-2-ol.

MSTR 2

G1—G35
287

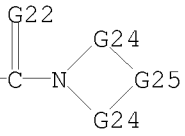
G1 = 2

G46—G13
2 3

G2 = NH2
G13 = 246 / 250 / 253

G17—G18 (246) G17—G19—G18 (250) G17—G20 (253)

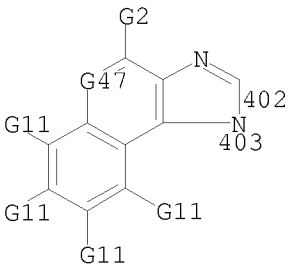
G17 = carbon chain <containing 1-20 C, 0 or more double bonds, 0 or more triple bonds> (opt. substd.)
G20 = 267



G22 = S
G27 = O
G35 = 300 / 302 / 305

G17—G18 (300) G17—G36—G18 (302 304) G17—G20 (305)

G46 = 403-287 402-3



G47 = N
Patent location: claim 1
Note: or pharmaceutically acceptable salts
Note: also incorporates later claims
Note: substitution is restricted

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 145:356778 MARPAT
TITLE: Preparation of hydroxyalkyl substituted imidazoquinolines as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases
INVENTOR(S): Kshirsagar, Tushar A.; Merrill, Bryon A.; Langer, Scott E.; Lindstrom, Kyle J.; Johannessen, Sarah C.; Marszalek, Gregory J.; Manske, Karl J.; Heppner, Philip D.; Lundquist, Gregory D., Jr.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 131pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

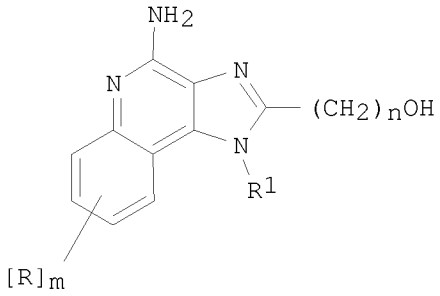
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006098852	A2	20060921	WO 2006-US6223	20060222
WO 2006098852	A3	20070531		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
AU 2006223634	A1	20060921	AU 2006-223634	20060222
CA 2598695	A1	20060921	CA 2006-2598695	20060222
EP 1851224	A2	20071107	EP 2006-758163	20060222

R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU

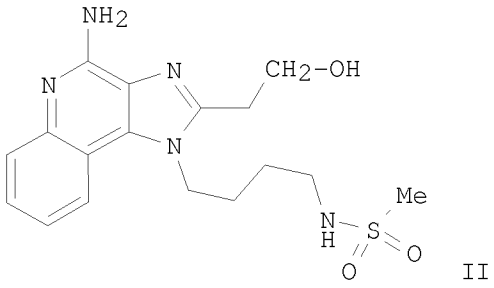
JP 2008543725	T	20081204	JP 2007-557115	20060222
US 20090029988	A1	20090129	US 2008-885005	20080725
PRIORITY APPLN. INFO.:			US 2005-655380P	20050223
			WO 2006-US6223	20060222

OTHER SOURCE(S): CASREACT 145:356778

GI



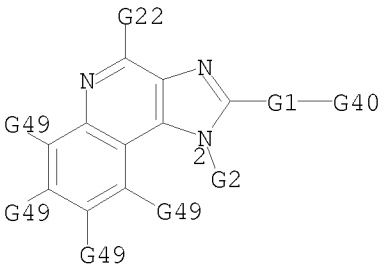
I



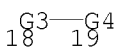
II

AB The title imidazoquinolines with a hydroxymethyl or hydroxyethyl substituent at the 2-position [I; m = 0-1; n = 0-2; R = halo/alkyl, alkoxy, halo; R1 = -X-Y-R4; -X-R5, -X-Het; X = straight or branched alkylene optionally interrupted by one O group; Y = S, SO, SO2, NR8Q; R4 = H, (un)substituted alk(en)yl, hetero/aryl, etc.; R5 = piperidinyl, morpholinyl, etc.; Het = tetrahydropyranyl, tetrahydrofuranyl; R8 = H, alkyl, arylalkylenyl, etc.; Q = a bond, CO, CS, SO2, SO2NH and derivs., etc.; and their pharmaceutically acceptable salts] were prepared as immunomodulators. E.g., a multi-step synthesis of II, starting 3-methoxypropionyl chloride from and tert-Bu N-[4-[(3-aminoquinolin-4-yl)amino]butyl]carbamate, was given. Compds. I and in some instances, their close analogs, were tested for their ability to induce cytokine biosynthesis (biol. data given for inducing IFN-α and TNF-α biosynthesis). Pharmaceutical compns. containing the compds. I, intermediates, methods of making and methods of use of these compds. as immunomodulators, for preferentially inducing IFN-α biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases are also disclosed.

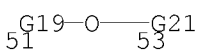
MSTR 1



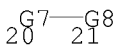
G2 = 18



G3 = 51-2 53-19



G4 = 20



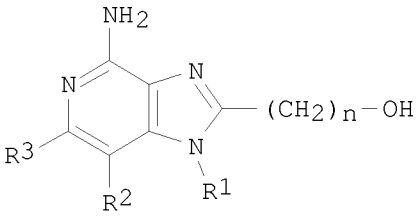
G7 = S
G19 = alkylene <containing 1 or more C> (opt. substd.)
G21 = carbon chain <containing 1 or more C,
0 or more double bonds, no triple bonds> (opt. substd.)
G22 = NH2
Patent location: claim 1
Note: or pharmaceutically acceptable salts
Note: substitution is restricted
Note: also incorporates later claims

L5 ANSWER 5 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 145:293057 MARPAT
TITLE: 1H-Imidazo[4,5-c]quinoline derivatives and their method of preferentially inducing the biosynthesis of interferon, preparation, pharmaceutical compositions and use for treatment of viral and neoplastic diseases
INVENTOR(S): Kshirsagar, Tushar A.; Merrill, Bryon A.; Langer, Scott E.; Lindstrom, Kyle J.; Johannessen, Sarah C.; Marszalek, Gregory J.; Wurst, Joshua R.; Manske, Karl J.; Niwas, Shri; Lundquist, Gregory D., Jr.; Heppner, Philip D.; Griesgraber, George W.; Danielson, Michael E.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 252pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

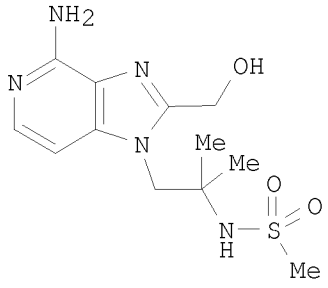
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006091647	A2	20060831	WO 2006-US6222	20060222
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
AU 2006216686	A1	20060831	AU 2006-216686	20060222
CA 2598437	A1	20060831	CA 2006-2598437	20060222
EP 1850849	A2	20071107	EP 2006-735755	20060222
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
JP 2008538203	T	20081016	JP 2007-557114	20060222
US 20090030031	A1	20090129	US 2008-884982	20080905
PRIORITY APPLN. INFO.:			US 2005-655380P	20050223
			US 2005-655452P	20050223
			US 2005-655495P	20050223
			US 2005-655508P	20050223
			WO 2006-US6222	20060222

OTHER SOURCE(S): CASREACT 145:293057
GI



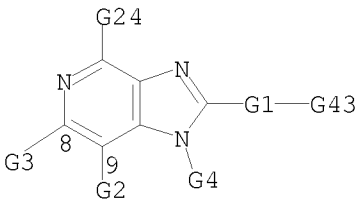
I



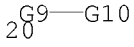
II

AB A method of preferentially inducing IFN-α biosynthesis in an animal comprising administering certain compds. of formula I or pharmaceutical compns. containing the compds., intermediates, methods of making, and methods of using these compds. a immunomodulators for treatment of diseases including viral and neoplastic diseases comprising preferentially inducing IFN-α biosynthesis in an animal are disclosed. Compds. of formula I wherein n is 1 ir 2; R2 and R3 are independently H, halo, alkyl, alkenyl, alkoxy, alkylthio, NH2 and derivs.; R2R3 taken together to form a fused (un)substituted (hetero)aryl ring; R1 is H, alkyl, alkenyl, alkynyl, (hetero)aryl, arylalkenyl,alkylene, alkenylene, alkynylene, (hetero)arylene, etc.; and their pharmaceutically acceptable salts are claimed. Example compound II by hydrogenation of N-{2-[(2-chloro-3-nitroquinolin-4-yl)amino]-1,1-dimethylethyl}methanesulfonamide; the resulting N-{2-[(3-amino-2-chloroquinolin-4-yl)amino]-1,1-dimethylethyl}methanesulfonamide underwent reaction with acetoxyacetyl chloride to give N-{2-chloro-4-[2-(methanesulfonylamino)-2-methylpropyl]quinolin-3-yl}acetoxyacetamide hydrochloride, which underwent hydrolysis to give N-[2-(4-chloro-2-hydroxymethyl-1H-imidazo[4,5-c]quinolin-1-yl)-1,1-dimethylethyl]methanesulfonamide, which reacted with ammonia to give compound II. All the invention compds. were evaluated for their ability to induce cytokine biosynthesis. From the assay, it was determined that example compound II had a min. effective concentration at 3.330 μM for IFN-α and 30.00 μM for TNF-α, and a maximal response for IFN-α of 2250 pg/mL and for TNF-α at 121 pg/mL.

MSTR 1

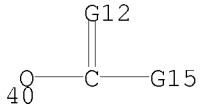


G4 = 20

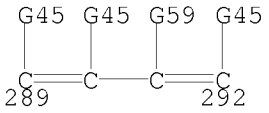


G9 = carbon chain <containing 1 or more C, 0 or more double bonds, 0 or more triple bonds> (opt. substd.)

G10 = 40



G12 = S
G24 = NH2
G2 +G3 = 289-9 292-8



Patent location: claim 1
Note: or pharmaceutically acceptable salts
Note: substitution is restricted
Note: additional heteroatom interruption also claimed
Note: additional substitution and ring formation also claimed
Note: also incorporates later claims

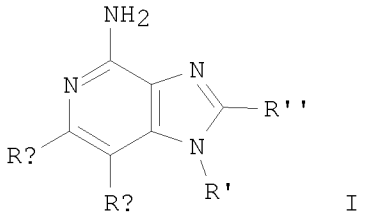
L5 ANSWER 6 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 145:293056 MARPAT
TITLE: Preparation of substituted imidazoquinolines and imidazonaphthyridines as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases
INVENTOR(S): Rice, Michael J.; Haraldson, Chad A.; Gerster, John F.; Wurst, Joshua R.; Heppner, Philip D.; Kshirsagar, Tushar A.; Merrill, Bryon A.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA; Coley Pharmaceutical Group, Inc.
SOURCE: PCT Int. Appl., 196 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006091394	A2	20060831	WO 2006-US4713	20060210
WO 2006091394	A3	20071122		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
AU 2006216997	A1	20060831	AU 2006-216997	20060210
CA 2597446	A1	20060831	CA 2006-2597446	20060210
EP 1845988	A2	20071024	EP 2006-748196	20060210

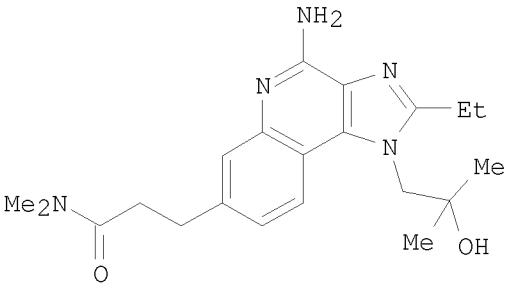
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU

JP 2008532933	T	20080821	JP 2007-555240	20060210
US 20090099161	A1	20090416	US 2008-884191	20080825
PRIORITY APPLN. INFO.:			US 2005-652239P	20050211
			WO 2006-US4713	20060210

GI



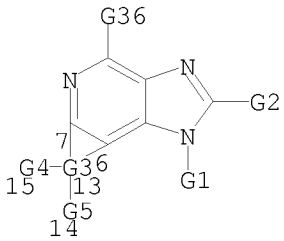
I



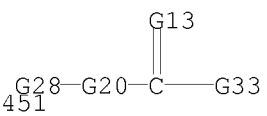
II

AB Title compds. [I; RACCRB = (un)substituted Ph, pyridinyl; R', R'' = independently H, non-interfering substituents; and their pharmaceutically acceptable salts] were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. For example, reacting N,N-dimethylacrylamide with 1-(7-bromo-2-ethyl-1H-imidazo[4,5-c]quinolin-1-yl)-2-methylpropan-2-ol, followed by hydrogenation over Pd/C, oxidation and treatment with NH4OH gave aminoimidazoquinoline II. Certain I modulated cytokine biosynthesis by inducing the production of interferon α and/or tumor necrosis factor α when tested in human cells (no data).

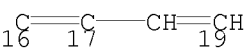
MSTR 1



G1 = 451



G3 = 16-7 19-6 16-15 17-14



G13 = S
G20 = O
G28 = carbon chain <containing 1-20 C,
0 or more double bonds, 0 or more triple bonds>
(opt. substd.)
G36 = NH2
Patent location: claim 1
Note: additional oxo formation also claimed
Note: additional oxygen interruptions also claimed
Note: substitution is restricted
Note: or pharmaceutically acceptable salts
Note: also incorporates calim 8, structure VII, claim 52,
strucure X, claim 53, structure XI,

L5 ANSWER 7 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 144:170992 MARPAT
TITLE: Preparation of substituted imidazopyridines, 6,7,8,9-tetrahydro/imidazoquinolines and 6,7,8,9-tetrahydro/imidazonaphthyridines as inducers of cytokine biosynthesis for treatment of viral and neoplastic disease
INVENTOR(S): Dellaria, Joseph F., Jr.; Kshirsagar, Tushar A.; Niwas, Shri; Moser, William H.; Moseman, Joan T.; Lindstrom, Kyle J.; Celebi, Abdulaziz A.; Gerster, John F.; Heppner, Philip D.; Wurst, Joshua R.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 304 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

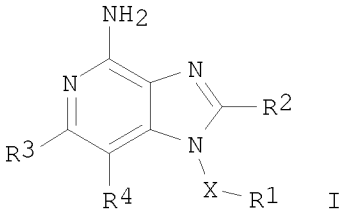
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006009832	A1	20060126	WO 2005-US21435	20050617

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK,

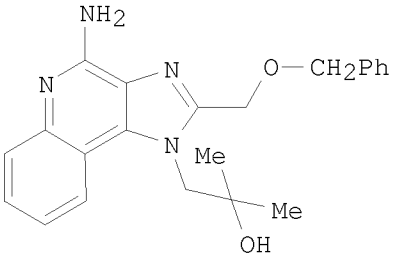
SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

US 20070259881 A1 20071108 US 2006-570715 20061215
PRIORITY APPLN. INFO.: US 2004-580989P 20040618
WO 2005-US21435 20050617

GI



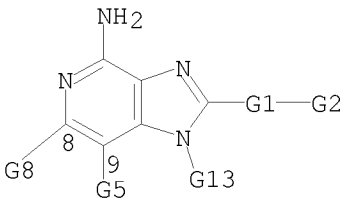
I



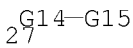
II

AB Title compds. [I; R1 = CH(CH2OH)OH, CH(CH2CH2OH)OH, CH(CH2OH)2; X = CHR5, CHR5-alk(en)ylene wherein the alk(en)ylene groups are optionally interrupted by one or more O's; R2 = hydroxyalkylenyl, alkoxyalkylenyl; R3, R4 = independently H, halo, alk(en)yl, NH2 and derivs., alkoxy, alkylthio; or R3 and R4 taken together form a (un)substituted fused aryl ring or fused 5- to 7-membered saturated ring; R5 = H, alkyl; and their pharmaceutically acceptable salts], were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. For example, II was prepared by acylation of 1-[(3-aminoquinolin-4-yl)amino]-2-methylpropan-2-ol with benzyloxyacetyl chloride, cyclization in the presence of methanolic ammonia, followed by oxidation and amination. Thus, I modulated cytokine biosynthesis by inducing the production of interferon α and/or tumor necrosis factor α in human cells (no data).

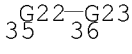
MSTR 5



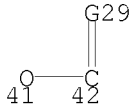
G13 = 27



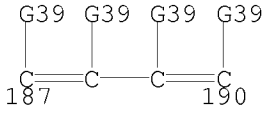
G14 = carbon chain <containing 1 or more C,
0 or more double bonds, 0 or more triple bonds>
(opt. substd.)
G15 = 35



G22 = 41-27 42-36



G29 = S
G5 +G8 = 187-9 190-8



Patent location: claim 88
Note: also incorporates claim 104
Note: substitution is restricted
Note: or pharmaceutically acceptable salts

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 144:88288 MARPAT
TITLE: Preparation of urea-substituted imidazopyridines, imidazoquinolines, and imidazonaphthyridines as inducers of cytokine biosynthesis for use against viral and neoplastic diseases
INVENTOR(S): Kshirsagar, Tushar A.; Lundquist, Gregory D., Jr.;

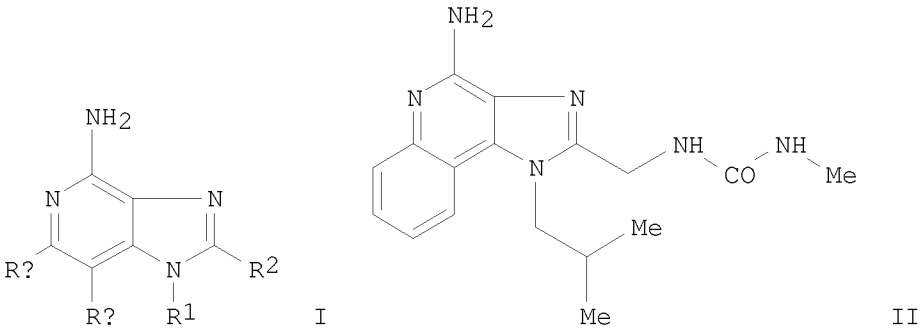
Celebi, Abdulaziz A.; Griesgraber, George W.; Johannessen, Sarah C.; Heppner, Philip D.; Amos, David T.; Zimmermann, Bernhard M.; Langer, Scott E.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 205 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005123079	A2	20051229	WO 2005-US20895	20050614
WO 2005123079	A3	20060622		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 20080015184	A1	20080117	US 2006-570567	20061213
PRIORITY APPLN. INFO.:			US 2004-579352P	20040614
			WO 2005-US20895	20050614

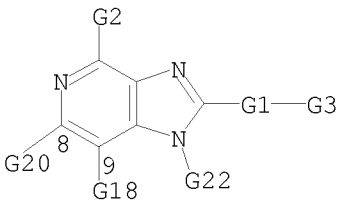
OTHER SOURCE(S): CASREACT 144:88288
GI



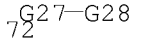
AB Imidazopyridine, imidazoquinoline, and imidazonaphthyridine compds. having a urea substituent at the 2-position (one of many Markush structures shown as I; variables defined below; e.g. 1-[[4-Amino-1-(2-methylpropyl)-1H-imidazo[4,5-c]quinolin-2-yl]methyl]-3-methylurea (shown as II)), pharmaceutical compns. containing the compds., intermediates, and methods of making and methods of use of these compds.

as immunomodulators (no data), for modulating cytokine biosynthesis in animals (no data) and in the treatment of diseases including viral and neoplastic diseases (no data) are disclosed. Although the methods of preparation are not claimed, prepns. and/or characterization data for .apprx.200 examples of I are included. For example, II was prepared in 5 steps starting with chloroacetylation of N'-(2-Methylpropyl)quinoline-3,4-diamine to give 2-(chloromethyl)-1-(2-methylpropyl)-1H-imidazo[4,5-c]quinoline, followed by amination to give 2-(chloromethyl)-1-(2-methylpropyl)-1H-imidazo[4,5-c]quinolin-4-amine, followed by reaction with potassium phthalimide to give 2-[[4-amino-1-(2-methylpropyl)-1H-imidazo[4,5-c]quinolin-2-yl]methyl]-1H-isoindole-1,3(2H)-dione, followed by treatment with hydrazine to give 2-(aminomethyl)-1-(2-methylpropyl)-1H-imidazo[4,5-c]quinolin-4-amine, followed by urea formation with Me isocyanate. For I: R2 = -X'-N(R8a)C(R6)N(R8a)W-R2-1, -X'-N(R8a)C(R6)N(OR8a)-R2-1, -X'N(R8a)C(R6)OR2-1, et al.; X' = C1-4 alkylene and C2-4 alkenylene; R2-1 = H, C1-4-alkyl, C2-4 alkenyl, C2-4 alkynyl, aryl, arylC1-4 alkylenyl, aryloxyC1-4 alkylenyl, C1-4 alkylarylenyl, heteroaryl, heteroarylC1-4-alkylenyl, heteroaryloxyC1-4 alkylenyl, C1-4 alkylheteroarylenyl, and heterocyclyl; RA and RB = H, halogen, alkyl, alkenyl, alkoxy, alkylthio, and -N(R9)2, or RA and RB taken together form either a fused aryl ring that is (un)substituted by ≥1 Ra groups, or a fused 5 to 7 membered saturated ring that is (un)substituted by ≥1 Rc groups, or RA and RB taken together form a fused heteroaryl or 5 to 7 membered saturated ring containing one heteroatom N and S. R1 = R4, X-R4, X-Y-R4, -X-Y-X-Y-R4, and -X-R5; X = alkylene, arylene, heteroarylene, and heterocyclylene; Y = S(O)0-2, C(R6), C(R6)O, OC(R6), OC(O)O, N(R8)Q, OC(R6)N(R8), C(R6)N(OR9), et al.; addnl. details including provisos are given in the claims.

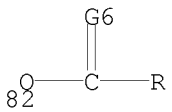
MSTR 1



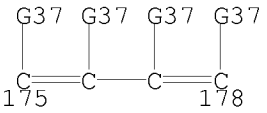
G2 = NH2
G6 = S
G22 = 72



G27 = alkylene <containing 1-20 C> (opt. substd.)
G28 = 82



G18+G20= 175-9 178-8



Patent location: claim 1
Note: or pharmaceutically acceptable salts
Note: substitution is restricted
Note: additional substitution and ring formation also claimed
Note: also incorporates later claims

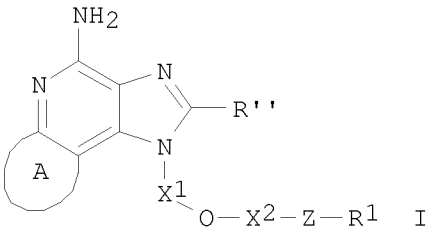
L5 ANSWER 9 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 143:229858 MARPAT
TITLE: Preparation of sulfone-substituted imidazo-fused ring ethers as immunomodulators
INVENTOR(S): Radmer, Matthew R.; Moser, William H.; Moseman, Joan T.; Dellaria, Joseph F., Jr.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 208 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005076783	A2	20050825	WO 2004-US40383	20041203
WO 2005076783	A3	20051229		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004315771	A1	20050825	AU 2004-315771	20041203
CA 2549216	A1	20050825	CA 2004-2549216	20041203
AR 48289	A1	20060419	AR 2004-104518	20041203
EP 1694674	A2	20060830	EP 2004-821353	20041203
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
CN 1914203	A	20070214	CN 2004-80041400	20041203
JP 2007513170	T	20070524	JP 2006-542750	20041203
US 20070155767	A1	20070705	US 2006-596117	20060531
IN 2006CN01966	A	20070608	IN 2006-CN1966	20060602
PRIORITY APPLN. INFO.:			US 2003-526772P	20031204
			WO 2004-US40383	20041203

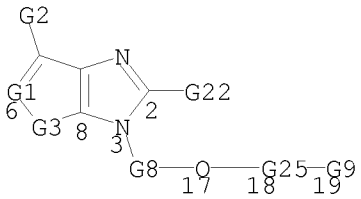
OTHER SOURCE(S): CASREACT 143:229858

GI

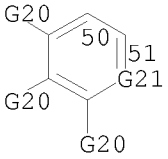


AB Title compds. I [X1-2 = alkylene, alkenylene, etc.; Z = SO0-2; R1 = alk(en/yn)yl, aryl, etc.; A = fused (hetero)aryl ring, etc.; R'' = H or non-interfering substituent] are prepared For instance, 2-Methyl-1-[2-[2-(methylsulfonyl)ethoxy]ethyl]-1H-imidazo[4,5-c]quinolin-4-amine is prepared in 8 steps from 2-[2-[(tert-butoxycarbonyl)amino]ethoxy]ethyl methanesulfonate, 4-chloro-3-nitroquinoline and tri-Me orthoacetate. I are immunomodulators for inducing cytokine biosynthesis [no data] and useful in the treatment of diseases including viral and neoplastic diseases.

MSTR 1



G1 = N
G2 = NH2
G3 = 50-6 51-8



G8 = alkylene <containing 1-10 C>
G9 = 21 / 23 / 32

G10—G11 G12—G14 G17—G18
21 23 24 32 33

G10 = S
G12 = 25-18 26-24

G10—G13
25 26

G17 = 34-18 35-33

G10—G13
34 35

G21 = 57

C——G20
57

G25 = alkylene <containing 1-10 C>
Patent location: claim 1
Note: substitution is restricted
Note: or pharmaceutically acceptable salts
Note: also incorporates claims 32, 33, 34, 35 and 36
Note: additional derivatization also claimed

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 10 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 143:153375 MARPAT
TITLE: Preparation of imidazoquinolinyl, imidazopyridinyl, and imidazonaphthyridinyl sulfonamides as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases
INVENTOR(S): Bonk, Jason D.; Dellaria, Joseph F., Jr.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 226 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005066169	A2	20050721	WO 2004-US43447	20041223
WO 2005066169	A3	20051110		

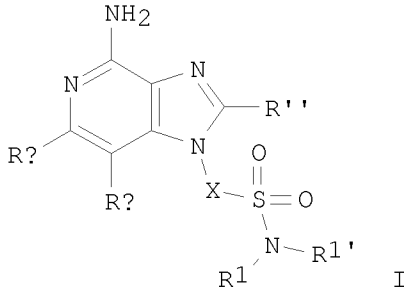
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,

CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
MR, NE, SN, TD, TG

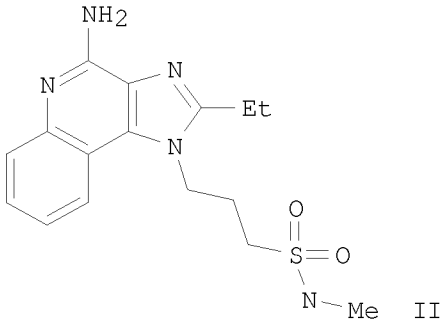
AU 2004312508	A1	20050721	AU 2004-312508	20041223
CA 2551399	A1	20050721	CA 2004-2551399	20041223
EP 1699788	A2	20060913	EP 2004-815514	20041223
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
JP 2007517044	T	20070628	JP 2006-547410	20041223
CN 101014596	A	20070808	CN 2004-80042087	20041223
US 20090062272	A1	20090305	US 2006-596897	20060628
IN 2006CN02383	A	20070706	IN 2006-CN2383	20060630
PRIORITY APPLN. INFO.:			US 2003-533465P	20031230
			US 2004-555936P	20040324
			US 2004-581335P	20040618
			WO 2004-US43447	20041223

OTHER SOURCE(S): CASREACT 143:153375

GI



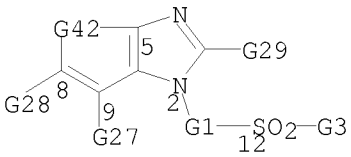
I



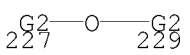
II

AB Title compds. I [X = CHR9, CHR9-alkylene, CHR9-alkenylene wherein alk(en)ylene are optionally interrupted by one or more O; R9 = H, alkyl; R1, R1' = independently H, (un)substituted alk(en)yl, hetero/aryl, etc.; or R1NR1' = nitrogen saturated ring; R'' = H, non-interfering substituent; RA, RB = independently H, halo, alk(en)yl, alkoxy, alkythio, NH2 and derivs.; or RBCCRA = (un)substituted fused hetero/aryl; and their pharmaceutically acceptable salts], were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. For example, II (m.p. = 225-228°) was prepared in 5 steps by amination of 4-chloro-3-nitroquinoline with N-methyl-3-aminopropane-1-sulfonamide•HCl, hydrogenation, cyclization of 1,2-diamine with tri-Et orthopropionate, and oxidation, and amination of the N-oxide (not isolated) with NH4OH. Certain I may modulate cytokine biosynthesis by inhibiting production of interferon α and/or tumor necrosis factor TNF-α when tested in an in vitro blood cell system (no data).

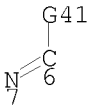
MSTR 1



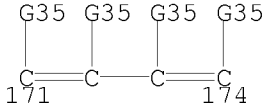
G1 = 227-2 229-12



G2 = carbon chain <containing 1 or more C, 0 or more double bonds, no triple bonds>
G41 = NH2
G42 = 7-8 6-5



G27+G28= 171-9 174-8



Patent location: claim 1
Note: or pharmaceutically acceptable salts
Note: substitution is restricted
Note: additional substitution and ring formation also

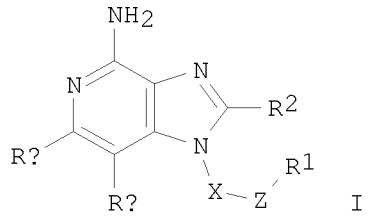
claimed
Note: also incorporates later claims

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

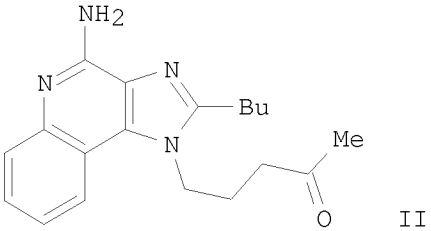
L5 ANSWER 11 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 143:26611 MARPAT
TITLE: Preparation of oxime substituted imidazo-containing compounds, particularly imidazoquinolines, as inducers of cytokine biosynthesis for treatment of viral and neoplastic diseases
INVENTOR(S): Krepski, Larry R.; Dellaria, Joseph F., Jr.; Duffy, Daniel E.; Radmer, Matthew R.; Amos, David T.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 200 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005051317	A2	20050609	WO 2004-US39512	20041124
WO 2005051317	A3	20060511		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004293078	A1	20050609	AU 2004-293078	20041124
CA 2547020	A1	20050609	CA 2004-2547020	20041124
EP 1687307	A2	20060809	EP 2004-812098	20041124
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
BR 2004016936	A	20070116	BR 2004-16936	20041124
CN 1926138	A	20070307	CN 2004-80040954	20041124
JP 2007512370	T	20070517	JP 2006-541697	20041124
SG 148201	A1	20081231	SG 2008-8728	20041124
MX 2006005910	A	20060823	MX 2006-5910	20060524
IN 2006CN01848	A	20070608	IN 2006-CN1848	20060525
KR 2006125818	A	20061206	KR 2006-712734	20060623
ZA 2006005216	A	20070425	ZA 2006-5216	20060623

PRIORITY APPLN. INFO.: US 2003-524961P 20031125
US 2004-580139P 20040616
WO 2004-US39512 20041124
OTHER SOURCE(S): CASREACT 143:26611
GI



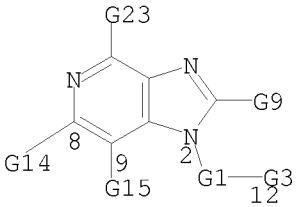
I



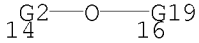
II

AB Title compds. [I; X = alkylene optionally interrupted by one or more -O-; Z = C:O, - C(:O)O-, -C(OR3)2-; R1 = H, (un)substituted alkyl, alkylene/aryl, alkylene/heteroaryl; Q = O, S; R3 = (un)substituted alkyl, alkylene/aryl, alkylene/heteroaryl; R2 = H, (un)substituted alk(en/yn)yl, hetero/aryl, alkylenealkyl, etc.; RA, RB = independently H, halo, alk(en)yl, alkoxy, alkylthio, NH2 and derivs.; or RACCRB = (un)substituted fused aryl ring or fused 5-7-membered saturated ring; and their pharmaceutically acceptable salts], were prepared as immunomodulators for inducing cytokine biosynthesis in animals and in the treatment of diseases including viral and neoplastic diseases. For example, II was prepared by reacting 4-(2-Butyl-1H-imidazo[4,5-c]quinolin-1-yl)butyraldehyde (preparation given) with MeMgBr, followed by oxidation, reductive amination of the ketone, oxidation with m-CPBA/reaction with NH4OH. I have been found to induce cytokine biosynthesis by inhibiting production of tumor necrosis factor TNF-α when tested on an in vitro human blood cell system (no data).

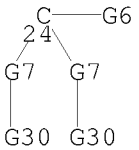
MSTR 1



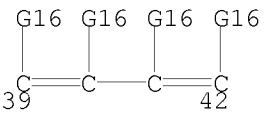
G1 = 14-2 16-12



G2 = alkylene <containing 1 or more C>
G3 = 24



G7 = S
G19 = alkylene <containing 1 or more C>
G23 = NH2
G14+G15= 39-8 42-9



Patent location: claim 1
Note: substitution is restricted
Note: or pharmaceutically acceptable salts
Note: additional substitution and ring formation also claimed
Note: also incorporates later claims

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 142:273978 MARPAT
TITLE: Administration of TLR7 ligands and prodrugs thereof for treatment of infection by hepatitis c virus
INVENTOR(S): Averett, Devron R.
PATENT ASSIGNEE(S): Anadys Pharmaceuticals, Inc., USA
SOURCE: U.S. Pat. Appl. Publ., 78 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050054590	A1	20050310	US 2004-931130	20040901
US 7576068	B2	20090818		
AU 2004271972	A1	20050324	AU 2004-271972	20040901
AU 2004271972	B2	20100603		
CA 2537450	A1	20050324	CA 2004-2537450	20040901
WO 2005025583	A2	20050324	WO 2004-US28236	20040901
WO 2005025583	A3	20050519		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,

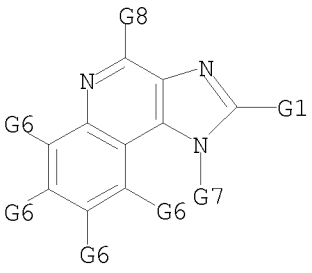
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

EP 1667694	A2	20060614	EP 2004-782670	20040901
EP 1667694	B1	20100428		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
CN 1845745	A	20061011	CN 2004-80025532	20040901
BR 2004014045	A	20061024	BR 2004-14045	20040901
JP 2007504232	T	20070301	JP 2006-525384	20040901
SG 146637	A1	20081030	SG 2008-6816	20040901
NZ 545536	A	20100430	NZ 2004-545536	20040901
AT 465742	T	20100515	AT 2004-782670	20040901
ES 2342069	T3	20100701	ES 2004-782670	20040901
ZA 2006001632	A	20080430	ZA 2006-1632	20060224
MX 2006002309	A	20060519	MX 2006-2309	20060228
CR 8273	A	20090710	CR 2006-8273	20060303
NO 2006001183	A	20060602	NO 2006-1183	20060314
US 20090298863	A1	20091203	US 2009-493737	20090629

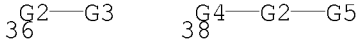
PRIORITY APPLN. INFO.: US 2003-500339P 20030905
US 2003-518996P 20031110
US 2003-518997P 20031110
US 2004-931130 20040901
WO 2004-US28236 20040901

AB This invention relates to methods for treating or preventing hepatitis C virus infections in mammals using Toll-Like Receptor (TLR)7 ligands and prodrugs thereof. More particularly, this invention relates to methods of orally administering a therapeutically effective amount of one or more prodrugs of TLR7 ligands for the treatment or prevention of hepatitis C viral infection. Oral administration of these TLR7 immunomodulating ligands and prodrugs thereof to a mammal provides therapeutically effective amts. and reduced undesirable side effects.

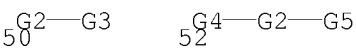
MSTR 3



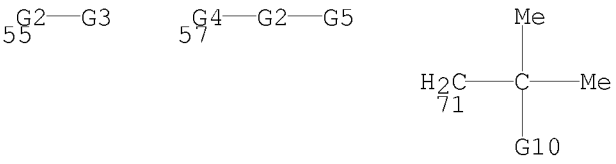
G1 = 36 / 38



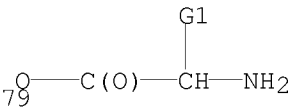
G2 = S
G6 = 50 / 52



G7 = 55 / 57 / 71



G8 = NH2
G10 = 79



Patent location: claim 3
Note: or pharmaceutically acceptable salts, hydrates, or metabolites
Note: also incorporates claim 22, formula IIc
Note: additional heteroatom interruption also claimed
Stereochemistry: or stereoisomers or derivatives

REFERENCE COUNT: 96 THERE ARE 96 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 142:261328 MARPAT
TITLE: Preparation of lipid-modified imidazo[4,5-c]quinolines as immune response modifiers
INVENTOR(S): Wightman, Paul D.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 76 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005018555	A2	20050303	WO 2004-US26157	20040812
WO 2005018555	A3	20051208		

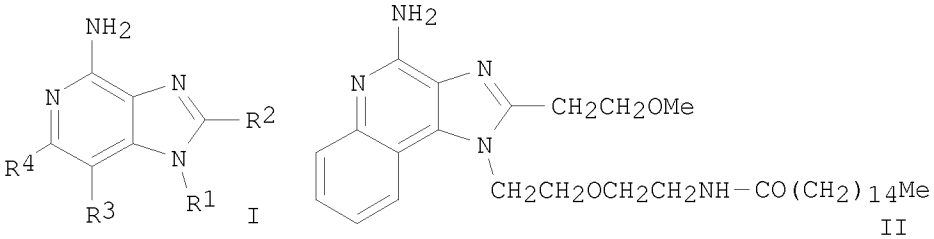
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

US 7427629	B2	20080923	US 2003-640904	20030814
US 20040091491	A1	20040513		
AU 2004266657	A1	20050303	AU 2004-266657	20040812
AU 2004266657	B2	20090702		
CA 2535338	A1	20050303	CA 2004-2535338	20040812
EP 1653959	A2	20060510	EP 2004-780921	20040812
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
JP 2007521317	T	20070802	JP 2006-523370	20040812
US 20060189644	A1	20060824	US 2006-595066	20060127

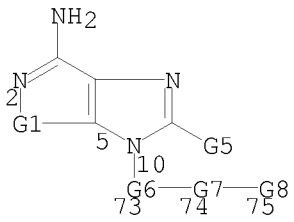
PRIORITY APPLN. INFO.: US 2003-640904 20030814
US 2003-515604P 20031030
US 2004-544561P 20040213
US 2002-403846P 20020815
WO 2004-US26157 20040812

GI

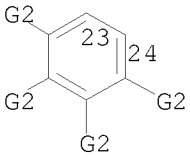


AB Lipid-modified compds. of formula I [R1 = alkylene-L-X; L = bond, linking group; X = alkyl group of at least 11 carbons; R2 = H, non-interfering substituent; R3, R4 = H, halo, alkyl, alkoxy, (substituted) amino, etc.; R3R4 = fused (hetero)aryl ring] are prepared as immune response modifiers. The compds. can be used as immunomodulators, for inducing or inhibiting cytokine biosynthesis in animals, in the treatment of diseases including viral and neoplastic diseases, or as vaccines. Thus, II was prepared, and was used to immunize mice with conjugate ovalbumin.

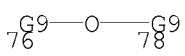
MSTR 1



G1 = 23-2 24-5



G6 = 76-10 78-74



G7 = S
G9 = carbon chain <containing 1-19 C,
0 or more double bonds, 0 or more triple bonds>
Patent location: claim 1
Note: or pharmaceutically acceptable salts
Note: substitution is restricted

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 140:321358 MARPAT
TITLE: Preparation of imidazo[4,5-c]quinoline dimers as immune response modifiers
INVENTOR(S): Griesgraber, George W.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004028539	A2	20040408	WO 2003-US30372	20030925
WO 2004028539	A3	20041028		

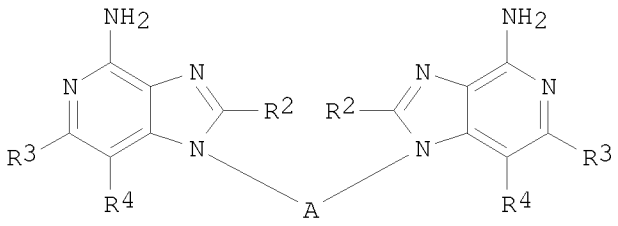
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,

LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

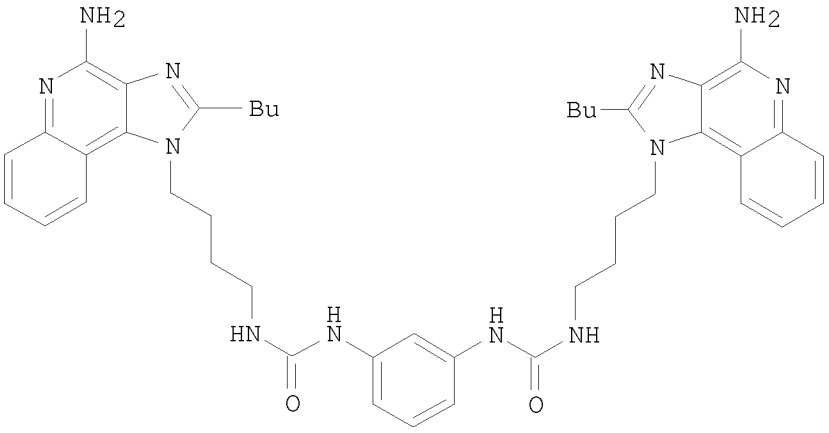
AU 2003299082	A1	20040419	AU 2003-299082	20030925	
US 20040132766	A1	20040708	US 2003-670957	20030925	
US 6818650	B2	20041116			
EP 1542688	A2	20050622	EP 2003-756870	20030925	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK					
JP 2006503068	T	20060126	JP 2004-539956	20030925	
US 20050026947	A1	20050203	US 2004-912908	20041008	
US 7112677	B2	20060926			

PRIORITY APPLN. INFO.: US 2002-413848P 20020926
US 2003-670957 20030925
WO 2003-US30372 20030925

GI



I

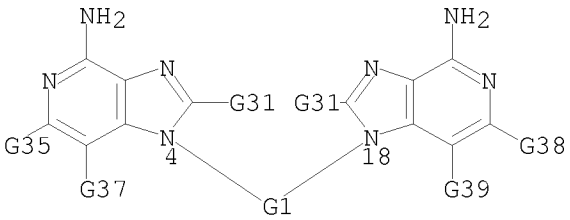


II

AB Title compds. I [wherein R2 = H, (un)substituted alkyl, alkenyl, (hetero)aryl, etc.; R3, R4 = independently H, halo, alkyloxy, alkenyl, alkylthio, amino, or R3R4 = (un)substituted (hetero)aryl ring; A = alkylene, alkenylene, alkynylene, etc.; and pharmaceutically acceptable salts thereof], and analogs (4 addnl. Markush structures), were prepared as

immune response modifiers. For example, reaction of 1-(4-aminobutyl)-2-butyl-1H-imidazo[4,5-c]quinolin-4-amine with 1,3-phenylene diisocyanate in CH2Cl2 under N2 at r.t., gave II as a white solid. II stimulated interferon α and tumor necrosis factor (TNF-α) biosynthesis in human blood cell at concentration of less than or equal to 10 μM. Thus, I and their pharmaceutical compns. induce cytokines biosynthesis and are useful in the treatment of a variety of conditions including viral diseases and neoplastic diseases.

MSTR 1



G1 = 28-4 30-18

G2—G3—G2
28 30

G2 = carbon chain <containing 4 or more C, 0 or more double bonds, 0 or more triple bonds>
G3 = 116-28 117-30

G11—G12
116 117

G11 = 133-28 134-117

G5—SO2
133 134

G12 = 135-116 136-30

G13—O
135 136

G13 = alkylene <containing 1-4 C>
G38+G39= CH=CHCH=CH
Patent location: claim 1
Note: substitution is restricted
Note: additional ring formation also claimed
Note: or pharmaceutically acceptable salts
Note: heteroatom interruptions of aliphatic groups also claimed
Stereochemistry: 84,87-, 112,113-, 166,169-, 194,195-, 230,233-,

258,259-, 421, 424-, 449,450-, 490,493-,
518,519-trans

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

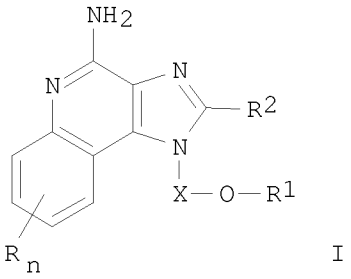
L5 ANSWER 15 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 139:292250 MARPAT
TITLE: Preparation of amido ether substituted imidazoquinolines as immune response modifiers
INVENTOR(S): Crooks, Stephen L.; Griesgraber, George W.; Heppner, Philip D.; Merrill, Bryon A.
PATENT ASSIGNEE(S): 3M Innovative Properties Co., USA
SOURCE: U.S. Pat. Appl. Publ., 50 pp., Cont.-in-part of U.S. Ser. No. 11,670.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 11
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20030187016	A1	20031002	US 2002-165449	20020607
US 6664265	B2	20031216		
US 20030096835	A1	20030522	US 2001-11670	20011206
US 6660747	B2	20031209		
EP 1541572	A1	20050615	EP 2005-4019	20011206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, LT, LV, FI, CY, TR				
US 20040072858	A1	20040415	US 2003-675833	20030930
US 20040067975	A1	20040408	US 2003-681711	20031007
US 20040157874	A1	20040812	US 2003-681457	20031007
US 20050143413	A1	20050630	US 2005-68207	20050228
US 7115622	B2	20061003		
US 20050148619	A1	20050707	US 2005-69033	20050228
US 7132429	B2	20061107		
US 20050209267	A1	20050922	US 2005-132537	20050519
US 7288550	B2	20071030		
US 20050234088	A1	20051020	US 2005-132900	20050519
US 7612083	B2	20091103		
JP 2010031040	A	20100212	JP 2009-255040	20091106

PRIORITY APPLN. INFO.:

US 2000-254218P	20001208
US 2001-11670	20011206
EP 2001-987297	20011206
JP 2002-547929	20011206
US 2001-11921	20011206
US 2001-12599	20011206
US 2001-13059	20011206
US 2001-13060	20011206
US 2002-165449	20020607
US 2003-680989	20031007
US 2003-681711	20031007
US 2003-696476	20031029
US 2003-696684	20031029

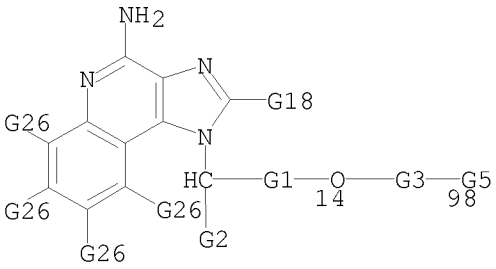
GI



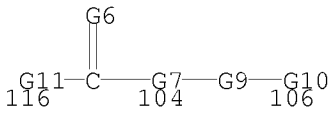
I

AB The title compds. [I; X = (CH2)2, CH(Et)CH2, etc.; R1 = (CH2)4CONMePh, (CH2)2NHCO(cyclohexyl), (CH2)2NHCO(1-naphthyl), etc.; R2 = H, alkyl, alkenyl, etc.; R = alkyl, alkoxy, OH, halo, CF3; n = 0-4] and their pharmaceutically acceptable salts that contain ether and amide functionality at the 1-position, and are useful as immune response modifiers, were prepared Thus, reacting 2-(1H-imidazo[4,5-c]quinolin-1-yl)ethanol with 5-bromo-N-methyl-N-phenylpentamide followed by treatment of the resulting N-oxide with trichloroacetyl isocyanate in CH2Cl2, and then treating the intermediate with NaOMe in MeOH afforded I [X = (CH2)2; R1 = (CH2)4CONMePh; R2 = H; n = 0] which showed interferon α induction in human cells at 3.33 μM. The compds. I and compns. comprising I can induce the biosynthesis of various cytokines, and are useful in the treatment of a variety of conditions, including viral diseases and neoplastic diseases.

MSTR 1



G1 = bond
G3 = alkylene <containing 1-20 C>
G5 = 116



G7 = S
G11 = bond
Patent location: claim 1

Note: additional ring formation also claimed
Note: or pharmaceutically acceptable salts

L5 ANSWER 16 OF 16 MARPAT COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 137:33295 MARPAT
TITLE: Preparation of amido ether substituted imidazoquinolines as immune response modifiers
INVENTOR(S): Crooks, Stephen L.; Griesgraber, George W.; Heppner, Philip D.; Merrill, Bryon A.
PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 11
PATENT INFORMATION:

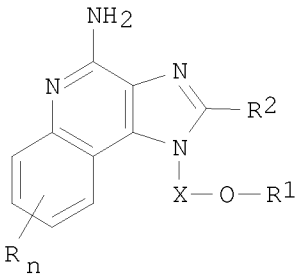
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046188	A2	20020613	WO 2001-US46359	20011206
WO 2002046188	A3	20030313		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2436980	A1	20020613	CA 2001-2436980	20011206
AU 2002032482	A	20020618	AU 2002-32482	20011206
US 20030065005	A1	20030403	US 2001-11921	20011206
US 6664260	B2	20031216		
EP 1341792	A2	20030910	EP 2001-992005	20011206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
EE 2003000268	A	20031015	EE 2003-268	20011206
CN 1511155	A	20040707	CN 2001-820159	20011206
CN 1247575	C	20060329		
CN 1537111	A	20041013	CN 2001-819907	20011206
CN 1252070	C	20060419		
JP 2004532810	T	20041028	JP 2002-547925	20011206
JP 4437189	B2	20100324		
NZ 526106	A	20041126	NZ 2001-526106	20011206
EP 1541572	A1	20050615	EP 2005-4019	20011206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, LT, LV, FI, CY, TR				
PT 1341791	E	20050930	PT 2001-987297	20011206
CZ 295848	B6	20051116	CZ 2003-1560	20011206
ES 2242782	T3	20051116	ES 2001-987297	20011206
BR 2001016464	A	20060221	BR 2001-16464	20011206
AT 319711	T	20060315	AT 2001-992018	20011206
CN 1253452	C	20060426	CN 2001-820161	20011206
HU 2006000338	A2	20060828	HU 2006-338	20011206
AU 2002232482	B2	20061019	AU 2002-232482	20011206

ES 2260323	T3	20061101	ES 2001-992018	20011206
CN 1297554	C	20070131	CN 2001-820167	20011206
AT 353895	T	20070315	AT 2001-987283	20011206
PT 1341790	E	20070531	PT 2001-987283	20011206
ES 2281456	T3	20071001	ES 2001-987283	20011206
TW 584633	B	20040421	TW 2001-90130401	20011207
TW 222972	B	20041101	TW 2001-90130402	20011207
TW 293300	B	20080211	TW 2001-90130404	20011207
NO 2003002451	A	20030716	NO 2003-2451	20030528
MX 2003004972	A	20040129	MX 2003-4972	20030604
HR 2003000461	A2	20040630	HR 2003-461	20030606
IN 2003CN00893	A	20050422	IN 2003-CN893	20030606
ZA 2003005270	A	20040826	ZA 2003-5270	20030708
ZA 2003005271	A	20041008	ZA 2003-5271	20030708
ZA 2003005273	A	20041008	ZA 2003-5273	20030708
ZA 2003005275	A	20041008	ZA 2003-5275	20030708
ZA 2003005274	A	20041018	ZA 2003-5274	20030708
ZA 2003005272	A	20041027	ZA 2003-5272	20030708
US 20040072858	A1	20040415	US 2003-675833	20030930
HK 1064383	A1	20070921	HK 2004-107230	20040920
US 20050148619	A1	20050707	US 2005-69033	20050228
US 7132429	B2	20061107		
US 20050209267	A1	20050922	US 2005-132537	20050519
US 7288550	B2	20071030		
US 20050234088	A1	20051020	US 2005-132900	20050519
US 7612083	B2	20091103		
JP 2010031040	A	20100212	JP 2009-255040	20091106

PRIORITY APPLN. INFO.:

US 2000-254218P	20001208
EP 2001-987297	20011206
JP 2002-547929	20011206
US 2001-11921	20011206
US 2001-12599	20011206
US 2001-13059	20011206
US 2001-13060	20011206
WO 2001-US46359	20011206
US 2003-680989	20031007
US 2003-696476	20031029
US 2003-696684	20031029

GI

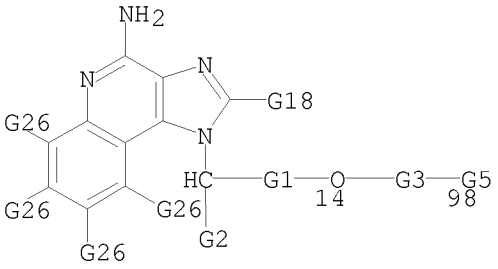


I

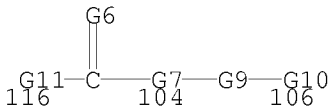
AB The title compds. [I; X = (CH2)2, CH(Et)CH2, etc.; R1 = (CH2)4CONMePh, (CH2)2NHCO(cyclohexyl), (CH2)2NHCO(1-naphthyl), etc.; R2 = H, alkyl, alkenyl, etc.; R = alkyl, alkoxy, OH, halo, CF3; n = 0-4] and their

pharmaceutically acceptable salts that contain ether and amide functionality at the 1-position, and are useful as immune response modifiers, were prepared Thus, reacting 2-(1H-imidazo[4,5-c]quinolin-1-yl)ethanol with 5-bromo-N-methyl-N-phenylpentamide followed by treatment of the resulting N-oxide product with trichloroacetyl isocyanate in CH2Cl2, and then treating the intermediate with NaOMe/MeOH afforded I [X = (CH2)2; R1 = (CH2)4CONMePh; R2 = H; n = 0] which showed interferon α induction at 3.33 μM. The compds. I can induce the biosynthesis of various cytokines, and are useful in the treatment of a variety of conditions, including viral diseases and neoplastic diseases.

MSTR 1



G1 = bond
G3 = alkylene <containing 1-20 C>
G5 = 116



G7 = S
G11 = bond
Patent location: claim 1
Note: additional ring formation also claimed
Note: or pharmaceutically acceptable salts

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his

(FILE 'HOME' ENTERED AT 10:46:06 ON 12 AUG 2010)

FILE 'REGISTRY' ENTERED AT 10:46:12 ON 12 AUG 2010
L1 STRUCTURE UPLOADED
L2 18 S L1 SAM
L3 446 S L1 FULL

FILE 'CA' ENTERED AT 10:46:49 ON 12 AUG 2010
L4 5 S L3

```
     FILE 'MARPAT' ENTERED AT 10:48:41 ON 12 AUG 2010
L5            16 S L3 FULL

=>

---Logging off of STN---


=>
Executing the logoff script...


=> LOG Y

STN INTERNATIONAL LOGOFF AT 10:50:09 ON 12 AUG 2010
```